(c) A human cellular protein called 'hypusine' is necessary for HIV replication, Hypusine synthesis is facilitated by a human cellular protein called 'deoxyhypusine synthase' (DHS). The investigators identified a substance called guanylhydrazone CNI-1493 as an efficient inhibitor of human DHS. By inhibiting DHS, this compound suppresses Hypusine formation and, thereby HIV multiplication. Further, the investigators also claimed that no measurable drug-induced adverse effects were observed. However, results of further trials are awaited.

(d) Conventional therapies, using the currently available anti-retrovira! drugs, target viral proteins called gp41, Reverse Transcriptase and Protease, which are essential for the entry of the virus into human CD4 cell and its multiplication there. The newly identified CNI-1493,on the other hand, targets a human protein called deoxyhypusine synthase (DHS), which is also essential for multiplication. Since HIV resistance is against currently used drugs that inhibit the synthesis of viral proteins only, the new drug effectively inhibits the synthesis of viral proteins only, the new drug effectively inhibits the multiplication of resistant strains also.

Embryonic stem cell therapy

2049. SHRIMATI S.G. INDIRA: Will the Minister of HEALTH AND FAMILY WELFARE be pleased to state:

(a) whether it is a fact that many clinics in the country are conducting embryonic stem cell therapy;

(b) if so, the details thereof;

(c) whether it is also a fact that the embryonic stem cells for therapeutic use is restricted worldwide; and

(d) whether it is also a fact that ICMR is conducting an enquiry regarding the use of the above in several clinics?

THE MINISTER OF STATE IN THE MINISTRY OF HEALTH AND FAMILY WELFARE (SHRIMATI PANABAKA LAKSHMI): (a) to (d) Indian Council *of* Medical Research (ICMR) stated that those who claim clinical success following Stem cell therapy (which is still in experimental stage globally) have been asked to submit scientific details for review by Council's experts. The concerned doctor in Nutech Mediworld, New Delhi who claimed to have conducted more than 100 cases of Embryonic Stem Cell Therapy, was invited by ICMR to make a presentation, who has given

a written report. Globally the use of embryonic Stem Cell for research and therapy is restrictive and has to be approved and monitored by appropriate committee constituted font. On the use of embryonic stem cell therapy through cloning, the Costa Rica group forbids the use for any type of cloning whereas the Belgium group (which includes India) allows therapeutic cloning. Reproductive cloning is however banned by all countries.

Human Organs Bank

2050. SHRI N.R. GOVINDRAJAR: Will the Minister of HEALTH AND FAMILY WELFARE be pleased to state:

(a) whether there is any proposal to set up a Human Organs Bank for the purpose transplantation of human organs in the country;

(b) if so, the details thereof;

(c) whether any steps have been taken by Government to encourage organ donation;

(d) whether any technology has been imported for the purpose and necessary training given to the doctors in this regard; and

(e) if so, the details thereof?

THE MINISTER OF STATE IN THE MINISTRY OF HEALTH AND FAMILY WELFARE (SHRIMATI PANABAKA LAKSHMI): (a) and (b) The Organ Retrieval Banking Organisation (ORBO) a national facility & nodal center for the country is already operational at All India Institute of Medical Sciences (AIIMS), New Delhi. A network of 15 hospitals (Government, Public and Charitable) with ORBO has been formed for smooth functioning and coordination for process of Organ Donation and Transplantation in Delhi.

(c) A Review Committee was set up by the Ministry of Health and Family Welfare to review the provisions of the Transplantation of Human Organs Act, 1994 and the Transplantation of Human Organs Rulas 1995
-and the Committee has recommended various steps to encourage organ donation.

(d) No, Sir.

(e) Does not arise.